



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2023-0937; Project Identifier MCAI-2022-00134-R]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for all Airbus Helicopters Model EC155B1 helicopters. This proposed AD was prompted by reports of failure of the main gearbox (MGB) oil cooling fan hub (fan hub). This proposed AD would require for helicopters with an affected part (fan hub) installed, using an endoscope, repetitively inspecting the fan hub, including the area around the fan hub attachment screws, for a crack. Depending on the inspection results, this proposed AD would require performing additional inspections and replacing an affected fan hub. This proposed AD would also allow an affected fan hub to be installed on a helicopter if certain actions are accomplished, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0937; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

*Material Incorporated by Reference:*

- For EASA material that is proposed for incorporation by reference in this NPRM, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [easa.europa.eu](https://easa.europa.eu) You may find the EASA material on the EASA website at [ad.easa.europa.eu](https://ad.easa.europa.eu).

- You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. The EASA material is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0937.

*Other Related Service Information:* For Airbus Helicopters service information identified in this NPRM, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at [airbus.com/helicopters/services/technical-support.html](https://airbus.com/helicopters/services/technical-support.html). You may also view this service information at the FAA contact information under *Material Incorporated by Reference* above.

**FOR FURTHER INFORMATION CONTACT:** Kevin Kung, Aerospace Engineer, Boston ACO Branch, Compliance & Airworthiness Division, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone (781) 238-7244; email [9-AVS-AIR-BACO-COS@faa.gov](mailto:9-AVS-AIR-BACO-COS@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include

“Docket No. FAA-2023-0937; Project Identifier MCAI-2022-00134-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Kevin Kung, Aerospace Engineer, Boston ACO Branch, Compliance & Airworthiness Division, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone (781) 238-7244; email 9-AVS-AIR-BACO-COS@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Background**

EASA, which is the Technical Agent for the Member States of the European Union, has issued a series of EASA ADs with the most recent being EASA AD 2022-0006R2, dated January 31, 2022 (EASA AD 2022-0006R2), to correct an unsafe condition for Airbus Helicopters Model EC 155 B1 helicopters.

This proposed AD was prompted by reports of failure of the fan hub. The FAA is proposing this AD to inspect for cracks on and around the fan hub. The unsafe condition, if not addressed, could result in an undetected loss of lubrication of the MGB or engine and reduced control of the helicopter.

You may examine EASA AD 2022-0006R2 in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0937.

### **Related Service Information Under 1 CFR Part 51**

EASA AD 2022-0006R2 requires, for helicopters with a certain part-numbered fan hub installed, repetitively inspecting the fan hub, including the area around the fan hub attachment screws, for a crack. EASA AD 2022-0006R2 also requires, if there is a crack, additional inspections, replacing an affected fan hub, and sending certain information to Airbus Helicopters.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Other Related Service Information**

The FAA also reviewed Airbus Helicopters Alert Service Bulletin No. EC155-05A039, Revision 0, dated January 6, 2022. This service information specifies procedures, using an endoscope, to inspect the fan hub and the fan hub attachment screws for a crack. This service information also specifies procedures to interpret the results of the endoscope inspection; and depending on the results, performing close monitoring, replacing an affected fan hub, and sending certain information to Airbus Helicopters.

### **FAA's Determination**

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of the same type design.

## **Proposed AD Requirements in this NPRM**

This proposed AD would require accomplishing the actions specified in EASA AD 2022-0006R2, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this proposed AD and except as discussed under “Differences Between this Proposed AD and the EASA AD.”

## **Explanation of Required Compliance Information**

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2022-0006R2 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2022-0006R2 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in EASA AD 2022-0006R2 does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in EASA AD 2022-0006R2. Service information referenced in EASA AD 2022-0006R2 for compliance will be available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0937 after the FAA final rule is published.

## **Differences Between this Proposed AD and the EASA AD**

EASA AD 2022-0006R2 requires replacing each affected fan hub with a serviceable fan hub if any crack is detected, whereas this proposed AD would require

removing each affected fan hub from service and replacing it with a serviceable fan hub if any crack is detected.

Service information referenced in EASA AD 2022-0006R2 specifies sending certain information, including pictures, to the manufacturer, whereas this proposed AD would not.

### **Interim Action**

The FAA considers that this proposed AD would be an interim action. If final action is later identified, the FAA might consider further rulemaking then.

### **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 10 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Inspecting the fan hub including each fan hub attachment screw and interpreting the results would take about 1 work-hour for an estimated cost of \$85 per inspection and \$850 for the U.S. fleet per inspection cycle.

Replacing an affected fan hub with a serviceable fan hub would take about 8 work-hours and parts would cost about \$7,273 for an estimated cost of \$7,953 per fan hub replacement.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Airbus Helicopters:** Docket No. FAA-2023-0937; Project Identifier MCAI-2022-00134-R.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Airbus Helicopters Model EC155B1 helicopters, certificated in any category.

**(d) Subject**

Joint Aircraft Service Component (JASC) Code: 6320, Main rotor gearbox.

**(e) Unsafe Condition**

This AD was prompted by reports of failure of the main gearbox (MGB) oil cooling fan hub (fan hub). The FAA is issuing this AD to inspect for cracks on and around the fan hub. The unsafe condition, if not addressed, could result in an undetected loss of lubrication of the MGB or engine and reduced control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2022-0006R2, dated January 31, 2022 (EASA AD 2022-0006R2).

**(h) Exceptions to EASA AD 2022-0006R2**

(1) Where EASA AD 2022-0006R2 requires compliance in terms of flight hours, this AD requires using hours time-in-service (TIS).

(2) Where EASA AD 2022-0006R2 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where paragraph (2.2) of EASA AD 2022-0006R2 requires within 50 FH [flight hours] after crack detection around the attachment screw, replace the affected part [fan hub] with a serviceable part, for this AD, within 50 hours TIS after crack detection around the attachment screw, remove the affected fan hub from service, and replace it with a serviceable fan hub.

(4) Where paragraph (3) of EASA AD 2022-0006R2 requires replacing an affected part with a serviceable part before next flight if any crack is detected in any area other than around the attachment screw, for this AD, if any crack is detected in any area



other than around the attachment screw, before further flight, remove the affected fan hub from service, and replace it with a serviceable fan hub.

(5) Where the service information referenced in EASA AD 2022-0006R2 specifies to “make sure that there is no crack,” this AD requires inspecting the area for a crack.

(6) Where the service information referenced in EASA AD 2022-0006R2 specifies to discard certain parts, this AD requires removing those parts from service.

(7) Where the service information referenced in EASA AD 2022-0006R2 specifies creating a Technical Event and sending certain information to Airbus Helicopters, this AD does not include those requirements.

(8) Where the service information referenced in EASA AD 2022-0006R2 specifies to use tooling, this AD allows the use of equivalent tooling.

(9) This AD does not adopt the “Remarks” section of EASA AD 2022-0006R2.

**(i) No Reporting Requirement**

Although the service information referenced in EASA AD 2022-0006R2 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(j) Special Flight Permit**

Special flight permits are prohibited.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (l) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(l) Related Information**

For more information about this AD, contact Kevin Kung, Aerospace Engineer, Boston ACO Branch, Compliance & Airworthiness Division, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone (781) 238-7244; email 9-AVS-AIR-BACO-COS@faa.gov.

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022-0006R2, dated January 31, 2022.

(ii) [Reserved]

(3) For EASA AD 2022-0006R2, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet easa.europa.eu. You may find the EASA material on the EASA website at ad.easa.europa.eu.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on May 2, 2023.

Michael Linegang, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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